

FASEB SUMMER CONFERENCES
-PROPOSED PROGRAM

CONFERENCE ON VIRAL ASSEMBLY

Date of Conference: July 15-20, 1990

CHAIRPERSON: Dr. Jonathan King
Dept. of Biology
MIT
Cambridge, MA. 02139

VICE CHAIRPERSON:

Dr. Roger M. Burnett
The Wistar Institute
Philadelphia, PA.

Sunday Evening: Donald Caspar (Brandeis University, Waltham, MA):
Changing Views of Virus Structure and Assembly

1. Three dimensional structures of Mature Virions

Chair: Roger M. Burnett

James Hogle (Scripps Institute, La Jolla CA.) Poliovirus
Structure

Wah Chiu and B.V. Prasad (Baylor, Houston, TX) Rotavirus
organization by Electron Microscopy

Steven Harrison (Harvard University, Cambridge MA.) Structure of
SV40

Roger M. Burnett (Wistar Institute, Philadelphia PA.)
Organization of Adenovirus Subunits

2. Penetration and Uncoating:

Chair: Ari Helenius

Robert Webster (Durham, NC.) Proteins needed for Penetration of
filamentous phage into E. coli.

Patricia Spear (Northwestern University, Evanston, IL) Early
Stages of Herpesvirus Infection

Judy White (UCSF, San Francisco, CA) Structural Changes in Capsi
Proteins During Membrane Fusion

Ari Helenius (Yale University) Early Cytoplasmic Events during
Enveloped Virus entry.

3. Protein Folding, Processing and Maturation

Chair: Mary Jane Gething

Jonathan King (MIT, Cambridge, MA) Temperature Sensitive Folding Mutations of the P22 Tailspike Endorhamnosidase.

Eckard Wimmer (SUNY, Stony Brook, NY) Polio Polyprotein Maturation

Mary Jane Gething (Southwestern Medical Center, Dallas, TX) Role of BIP Protein in the Folding and Maturation of Influenza Hemagglutinin

Steve Oroszlan (Frederick Cancer Research Institute, Frederick, MD) Retrovirus Polyprotein Processing

4. Capsid Assembly in RNA Viruses

Chair: Roland Rueckert

Todd Schuster (Storrs, CT) Tobacco Mosaic virus Initiation and Elongation

Reed Wickner (Lab of Biochemical Pharmacology, NIH DDDK Bethesda, MD 20892) Assembly of Yeast Killer Particles

Roland Rueckert (University of Wisconsin) Synthesis and assembly of a Noda Virus- Black Beetle Virus.

Joyce Jentoft (Case Western Reserve University, Cleveland, OH) Structure of Retroviral Nucleocapsid Proteins

Eric Hunter (University of Alabama, Birmingham, AL) Assembly of D-type Retrovirus Capsids

5. RNA Packaging

Chair: Richard Compans

Leonard Mindich (New York Public Health Research Institute, NY) Encapsidation of RNA by Lipid Containing Bacteriophages

Jack Johnson (Purdue University, West Lafayette, IN) RNA Organization within Plant Virions

Richard Young (MIT) HIV RNA and Protein sequences involved in viral RNA Packaging.

Dr. Peter Palese (Mt. Sinai School of Medicine) Packaging Signal in Influenza Viruses

6. Capsid Assembly in DNA Viruses

Chair: Robert Garcea

Peter Prevelige (MIT, Cambridge, MA) Scaffolding Subunits in P22

Procapsid Assembly

Wade Gibson (Johns Hopkins University, Baltimore MD.) Capsid Assembly in Cytomegalovirus

Robert Garcea (Harvard Medical School, Cambridge, MA.) Oncogene regulation of polyoma assembly through phosphorylation

Minou Bina (Purdue University, West Lafayette, Indiana) Assembly of SV40 virions

7. DNA Packaging

Chair: Sherwood Casjens

Sherwood Casjens (Univ. of Utah Med School, Salt Lake City, UT) Headful Packaging Mechanisms

Mike Feiss (University of Iowa, Iowa City, IA) Packaging of Lambda DNA

Dwight Anderson (Minneapolis MN) Packaging of DNA with Covalently Bound Protein

8. Envelope Assembly and Budding

Chair: Leonard Mindich

Marjorie Russell (Rockefeller University, New York, NY) Assembly of filamentous bacteriophage

Bernard Moss (Bethesda, MD) HIV Envelope Assembly

Jack Rose (Yale University, New Haven, CT) Role of Glycoprotein Cytoplasmic domains in VSV Assembly

Jim Strauss (Caltech, Pasadena CA) Mutants defective in Togavirus Envelopment (RNA)

Richard Compans (University of Alabama, Birmingham AL) Signals for Cellular Localization of Viral Glycoproteins

9. Therapeutic Strategies

Guy. D. Diana (Sterling Research Group, Rensselaer, NY) Anti-rhinovirus agents

Paula Fitzgerald (Merck, Sharp and Dohme labs Rahway, NJ) Retrovirus Proteases and Their Complexes with Inhibitors

Gillian Air (University of Alabama, Birmingham, AL) Anti-Influenza Antibodies